

### ABSTRACT

Rapidly acting compositions having vapor phase insecticidal activity comprise natural products or natural product-based materials. Further, these materials are non-petroleum based, are typically 100% biodegradable, and typically do not persist in the environment, unlike traditional pesticides. The compositions kill susceptible insects on contact in seconds, even the notoriously hardy *peripleneta* species. The compositions also kill insects behind cracks and crevices and when sprayed onto absorbent surfaces such as wood and plasterboard, where traditional contact insecticides work poorly or not at all. New methods of testing insecticides can be used to quantify these effects.